

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**

(12) UK Patent Application (19) GB (11) 2 154 843 A

(43) Application published 18 Sep 1985

(21) Application No 8405660

(22) Date of filing 5 Mar 1984

(71) Applicant  
Michael Ernest Bickel,  
34 Oakbury Drive, Preston, Weymouth, Dorset  
DT3 6JE

(72) Inventor  
Michael Ernest Bickel

(74) Agent and/or Address for Service  
John Eastmond,  
8 Camilla Close, Great Bookham, Surrey KT23 4BU

(51) INT CL<sup>4</sup>  
A01K 97/04

(52) Domestic classification  
A1A 3

(56) Documents cited  
None

(58) Field of search  
A1A

(54) Bait container

(57) A bait container 1 houses a source of light 2, light from which is directed via a demountable light guide 7 and reflector 10 to illuminate a space adjacent to lens 9. The assembly frees both hands of an Angler to accurately conceal a fishing hook in the bait during the hours of darkness by positioning both beneath the lens 9 and within the illuminated space. The bait container 1 has a recessed compartment 11 in which the lens 9, reflector 10 and light guide 7, together with spare bulbs 12 may be stowed when not in use or in transit.

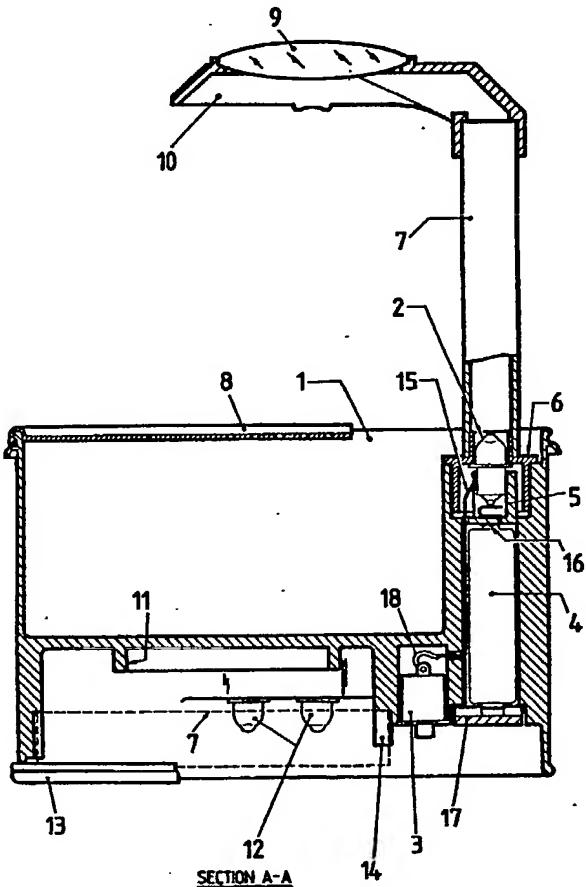


Figure 3

GB 2 154 843 A

2154843

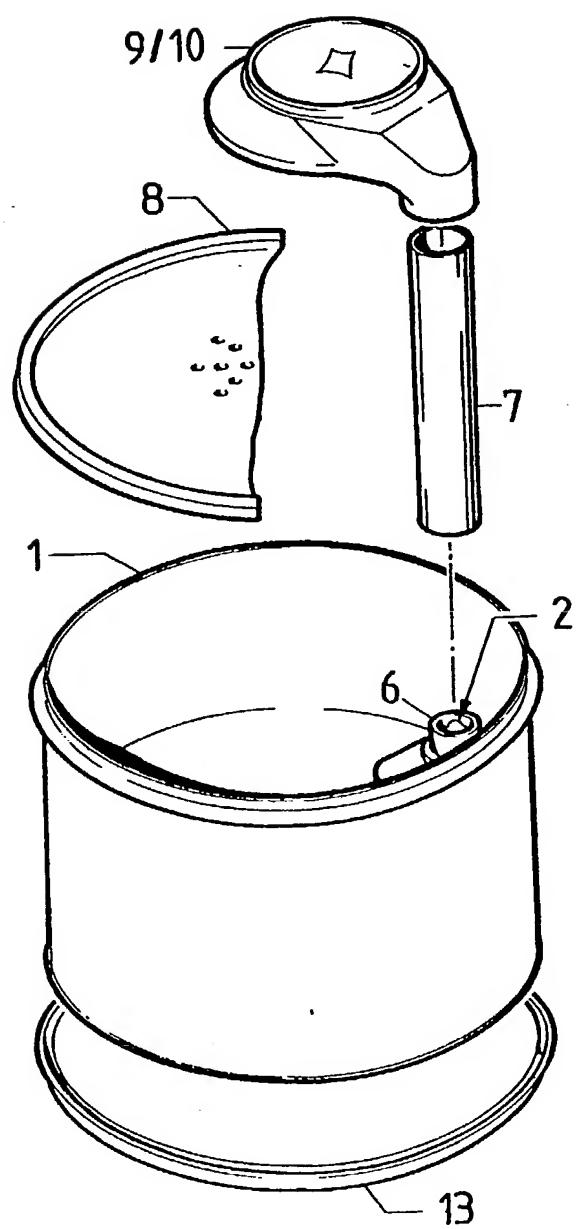


Figure 1

2154843

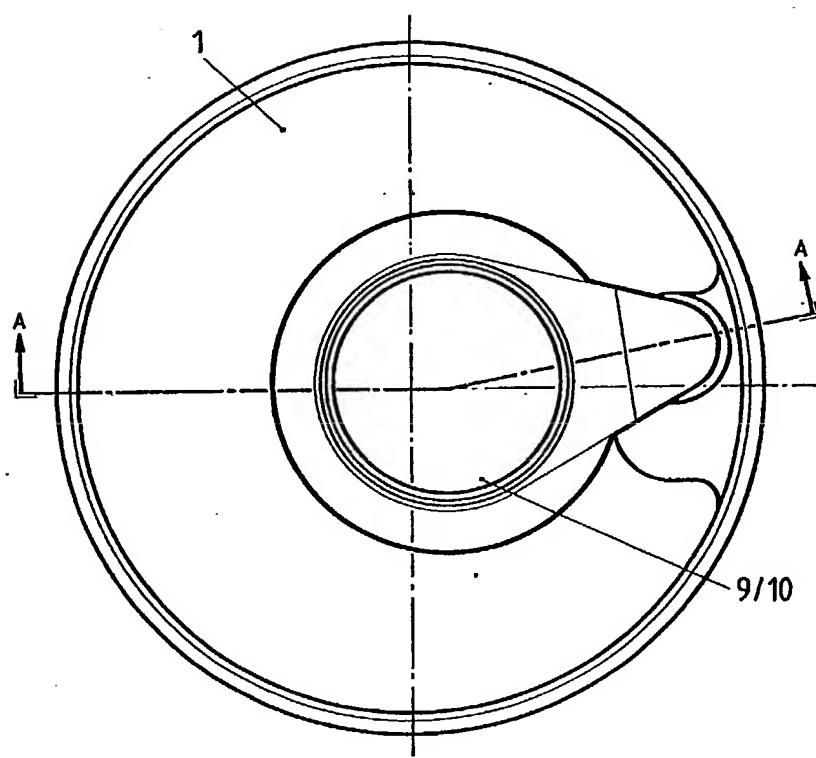


Figure 2

2154843

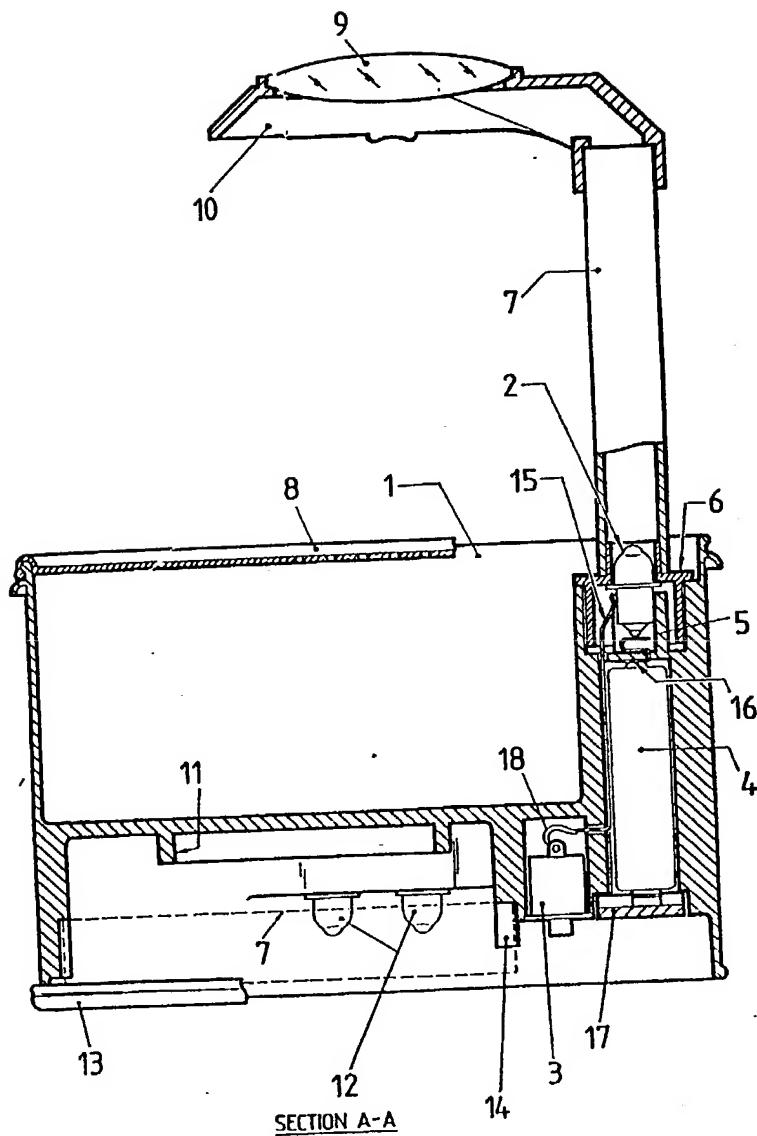


Figure 3

2154843

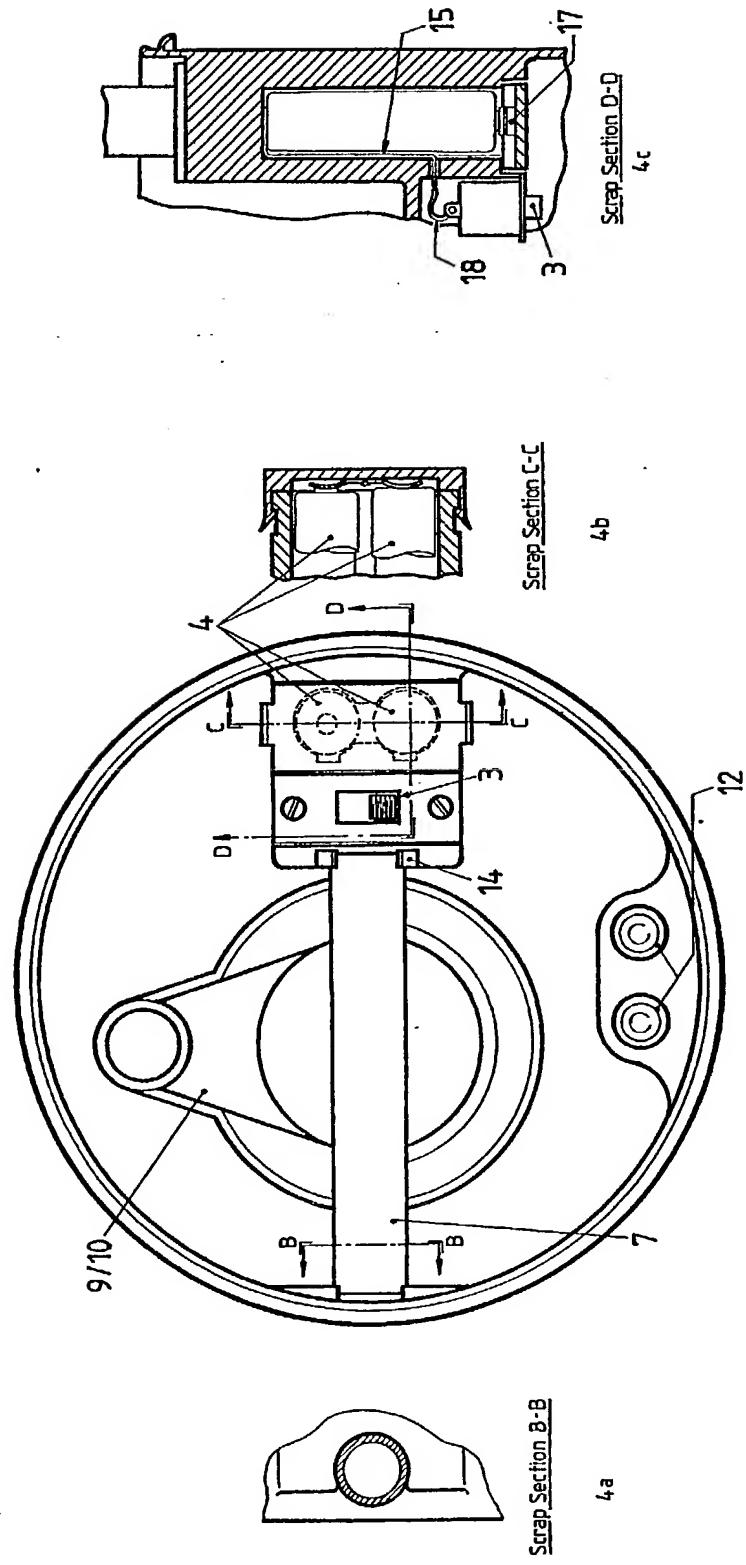


Figure 4

2154843

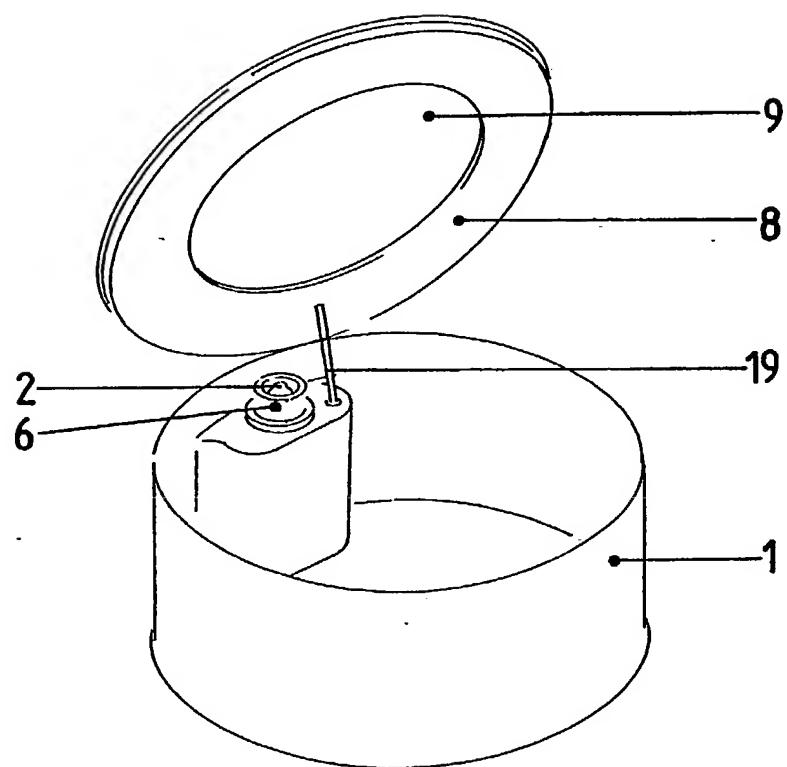


Figure 5

2154843

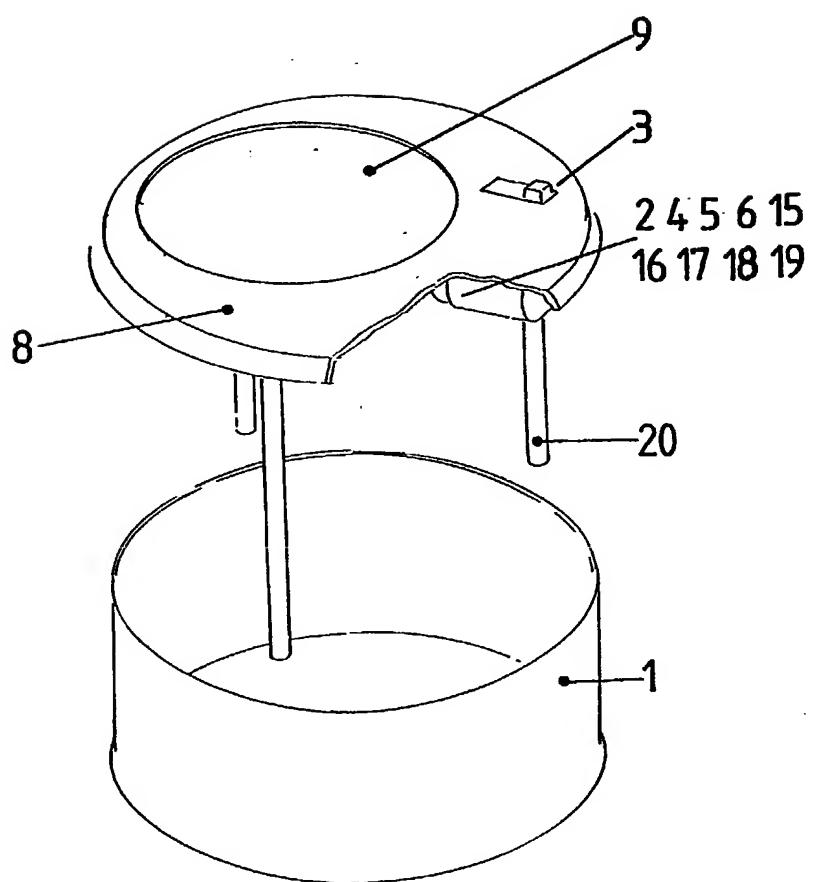


Figure 6

2154843

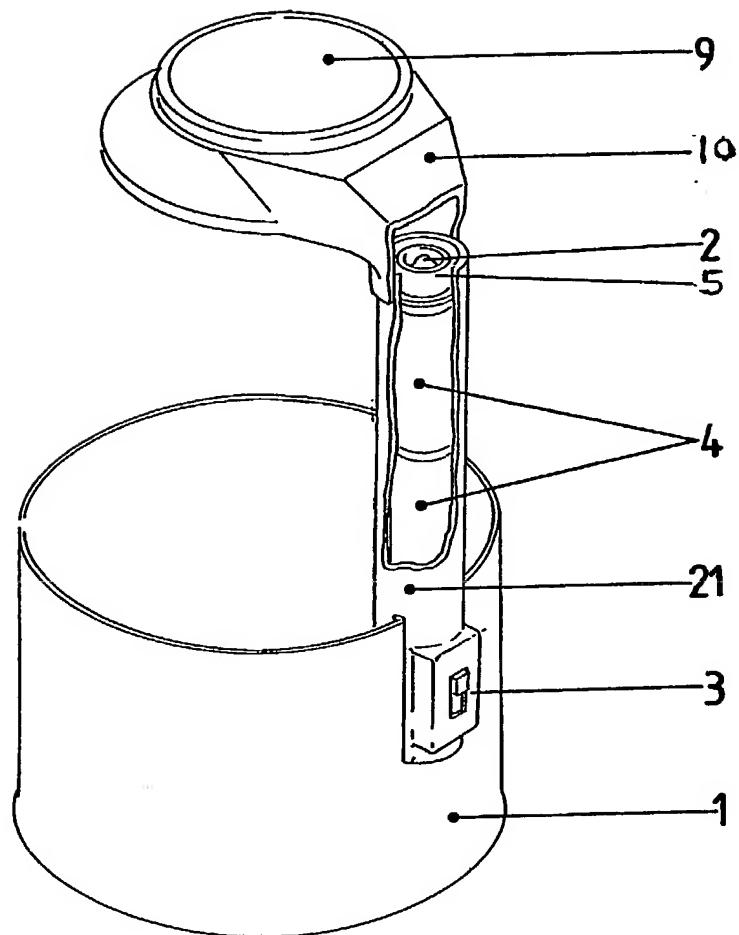


Figure 7

2154843

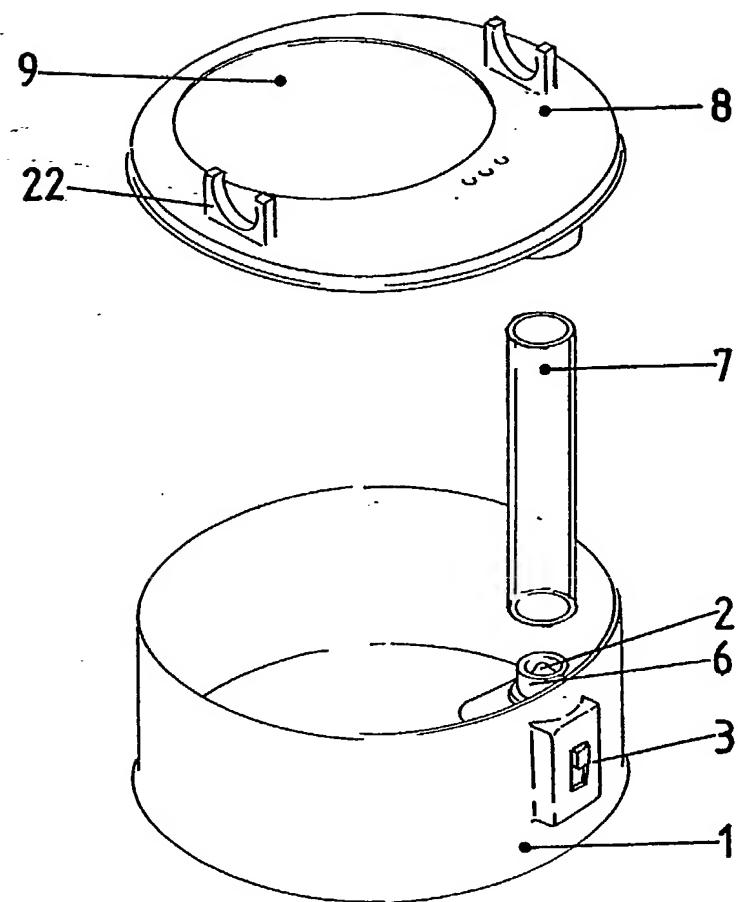


Figure 8

## SPECIFICATION

## Fishing equipment

## 5 INTRODUCTION

This invention concerns improvements in fishing equipment and in particular bait boxes and is deemed desirable by the Inventor as an aid to the sport of both sea and fresh water fishing. It is estimated there are some three million people who enjoy this popular leisure activity in the United Kingdom alone.

Traditionally the degree of accuracy obtained by the Angler to conceal the hook in the bait presented to the fish has been a major contributing factor to the size of the catch. Hook baiting during the hours of daylight can be undertaken with relative ease. However, in the absence of daylight this task cannot be carried out without the aid of a torch or lamp, which has to be focussed upon the hook and bait presented simultaneously. Both hands are needed to actually insert the hook into the bait. The present invention offers a scientific approach to improve the accuracy of hook baiting.

In so far as the Inventor is aware, no device exists which offers to the Angler a compact combination of all these requirements, leaving both hands free to precisely insert the hook irrespective of the light available. The Inventor has successfully achieved the above objectives with prototypes of the invention which will now be broadly described.

## 35 DISCLOSURE OF THE INVENTION

The invention comprises a bait container, mounting means attached to said bait container, magnifying means mounted upon said mounting means and a light source attached to said mounting means or to said bait container, so that in use the light source illuminates a space adjacent to the magnifying means.

45 The bait container may be made of plastic material similar to conventional bait containers extensively retailed for the retention and transportation of bait to the fishing venue. The mounting means may consist of a tube attached to the bait container and containing the light source within. The magnifying means may be a lens also attached to the tube in a reflector which is arranged to direct light from the light source between the lens and the bait

55 container. Once assembled the Angler may conveniently place the device upon his lap and illuminate the magnifying lens if required. With both hands free, selection of the bait from within the bait container may be achieved with either hand, whilst the other hand retains the hook attached to the fishing line. Both the selected bait and hook are offered together beneath the magnifying lens. The hook and 65 the bait can be seen by the Angler looking

downwards towards the bait container through the top of the magnifying lens. Focussing and magnification is obtained by simultaneously either raising or lowering the hook and selected bait beneath the lens, thus facilitating the precise insertion of the magnified hook into the magnified bait.

An embodiment of the invention will now be described by way of an example only with reference to the accompanying drawings.

## BRIEF INTRODUCTION TO THE DRAWINGS

In the drawings accompanying this specification:

80 Figure 1 is an exploded perspective view of a fishing equipment according to the invention.

Figure 2 is a plan view of the fishing equipment shown in Fig. 1.

85 Figure 3 is a cross section along the A-A lines of Fig. 2 and,

Figure 4 an underside view of the fishing equipment shown in Fig. 1, with sub figures 4a, 4b and 4c showing scrap sections along

90 lines B-B, C-C and D-D respectively.

Alternative embodiment designs are depicted by the accompanying simple drawings figures 5, 6, 7 and 8.

## 95 DESCRIPTION OF ONE EMBODIMENT

In the Figs. 1, 2, 3, 4, 4a, 4b and 4c: the bait container portion 1 of the equipment is designed to house the light bulb 2, on-off switch 3 and batteries 4 all within the one moulding, separate from the bait (not shown).

The lens topped bulb 2 is retained in a bulb holder 5 located directly above the vertically mounted, series connected batteries 4. A collar 6 is positioned over the bulb 2 into which

105 the light guide 7 is mated with a push fit. Removal of the collar 6 by an unscrewing action allows access to the bulb 2 for cleaning and replacement. The design of the collar 6 is such that when in place retaining the bulb 2 (without the light guide 7 fitted), the top of the collar 6 is flush with the top of the bait container 1, thus ensuring that the bait container lid 8 (removed in Fig. 2) may be replaced without restriction.

110 115 The light guide 7 is designed to carry the transmitted light from the bulb 2 and supports the magnifying lens 9 and reflector 10.

During the hours of darkness the magnifying lens/reflector 9/10 is illuminated when wire 18 connects switch 3 to bulb 2, contact 15. The other bulb 2 contact 16 connects bulb 2 to one polarity terminal of batteries 4. The other polarity terminal of batteries 4 is connected via a combined battery/cover contact 17 to switch 3 by means of a reflective surface 10 positioned directly above the light guide 7 moulded as part of the magnifying lens holder. The angulated circumference to the reflector 10 illuminates the baiting procedure also the bait container 1. Daytime use

120 125 130

simply magnifies the hooking and baiting procedure.

When not in use the magnifying lens 9 & reflector 10 are detached from the light guide

5 7 and stowed in the recessed compartment 11 located beneath the bait container 1. The recessed compartment 11 is sealed with a push-on cover 13. The light guide 7 is secured in stowage by clip 14 moulded into the 10 compartment 11. Fig. 4 illustrates the stowed position of the parts also storage for spare bulbs 12.

In the embodiment shown in Fig. 3, the equipment is constructed in three basic parts:-

15 The Bait container 1 incorporating the light source 2 and battery supply 4.

The light guide 7.

The magnifying lens and reflector 9 and 10.

20 It is envisaged that a polypropylene or equivalent base material is best suited to this construction primarily for ease of reproduction, cost effectiveness, weight and durability.

Considerable thought has been addressed 25 to the manufacturing aspects, culminating in the design as depicted by the accompanying drawings, Figs. 1, 2, 3 and 4.

#### ALTERNATIVE EMBODIMENTS

30 Many alternative constructions of, or modifications to the particular embodiment of the invention described above will now suggest themselves to those skilled in the art. For example, the lens could be a Fresnel lens 35 which is flat, inexpensive and more convenient than a glass or plastic convex surfaced lens. The shape of the bait container may be any shape, but usually in multiples of 1 pint capacity. The shape of the lens may also vary 40 considerably. However, the 'active lens' dimension is specified as a diameter, with respect to a square lens for example the balance or outer-square area is clear.

Several alternative embodiments are now 45 described, illustrated with simple drawings.

The first such alternative relates to Fig. 5. The lens 9 could be mounted in the lid 8 which could be pivotally attached to the bait container 1 and held in an open position by a 50 hinged prop 19. The light source could then comprise of a bulb 2. Transmitted light could be directed towards the underside of the open lid 8 so arranged to reflect the transmitted light down over the surface of the bait container 1 without the need for light guide 7 and the reflector 10.

The second alternative relates to Fig. 6. The lens 9 could be mounted in the lid 8 off centre to accommodate the under lid mounted 60 light bulb 2 batteries 4, switch 3 and items 5, 6, 15, 16, 17 and 18.

The lid 8 is supported above the bait container 1 by three clip-on legs 20 which locate into the lid 8 by a push fit location. The light 65 source could then comprise of a bulb 2 and a

reflective under lid 8 arrangement so as to direct light into the space between lid 8 and the bait container 1 without the need for light guide 7 and the reflector 10.

70 The third alternative relates to Fig. 7. The lens 9 could be mounted in a reflector 10 attached to one end of a support 21 which houses the light bulb 2 and bulb holder 5 also the switch 3 and batteries 4. The other end of 75 support 21 is attached to the bait container 1 by straddling the rim. This alternative example is assembled at the venue after removing the lid 8 (not shown). The light source could then comprise of a bulb 2 and reflector 10 arrangement to direct light into the bait container 1 as described in Fig. 3 but without the need for light guide 7.

The fourth option arrangement relates to Fig. 8. The lens 9 could be mounted in the lid

85 8. The light guide 7 could be translucent and one end attached to the lid 8 by a push fit into a boss moulded as part of the lid 8. The other end of light guide 7 fits over the bulb retainer 6 as Fig. 3. The light source could 90 then comprise of a bulb 2 transmitting light into the light guide 7, radiated light from the light guide 7 will illuminate the area beneath the lid 8 and the bait container 1. When not in use the light guide 7 could be stowed by 95 the retaining clips 22 situated on the top of the lid 8.

#### CLAIMS

1. Fishing equipment including a bait container, optical magnification means, mounting means for mounting in use the optical magnification means over the interior of the bait container and a source of light for attachment in use to the mounting means or the bait 105 container so that it is then able to illuminate a space adjacent the optical magnification means.

2. Fishing equipment as claimed in claim 1 or claim 2 above and wherein the bait 110 container is made of a plastics material and is of a capacity substantially equal to one of the range of capacities of bait containers conventionally supplied by fishing equipment retailers.

3. Fishing equipment as claimed in claim 115 1 or claim 2 above and wherein the bait container is adapted to house, when not in use, the optical magnification means, the mounting means and the light source.

4. Fishing equipment as claimed in any 120 one of the preceding claims and wherein the optical magnification means is a fresnel lens.

5. Fishing equipment as claimed in any one of the preceding claims and wherein the mounting means is a lid of the bait container, 125 having the optical magnification means mounted therein and pivotally attached to the bait container so that it may be secured in a partially open position by a prop or like support means.

130 6. Fishing equipment as claimed in any

one of claims 1 to 4 inclusive and wherein the mounting means is a lid of the bait container, having the optical magnification means mounted therein and one or more legs pivotally attached to the underside thereof so that in use the legs may be attached to the bait container so as to hold the lid over the interior thereof but in spaced apart relationship thereto.

10 7. Fishing equipment as claimed in any one of the preceding claims and wherein the source of light comprises a battery powered tungsten filament bulb mounted within the bait container and wherein the mounting means includes means for reflecting or directing or guiding light from the bulb so as to illuminate a space adjacent the optical magnification means.

8. Fishing equipment as claimed in claim 20 7 and wherein the mounting means comprises a translucent tube demountably positioned over the bulb and demountably attached to the underside of a lid of the bait container having the optical magnification means

25 mounted therein so that in use the lid held in spaced apart relationship to the bait container and light from the bulb is transmitted into the tube and radiated therefrom to illuminate the space between the optical magnification means and the bait container.

9. Fishing equipment as claimed in claim 1 and substantially as herein before described with reference to Figs. 1 to 4 inclusive of the accompanying drawings.

35 10. Fishing equipment as claimed in claim 1 and substantially as hereinbefore described with reference to Fig. 5 of the accompanying drawings.

11. Fishing equipment as claimed in claim 40 1 and substantially as hereinbefore described with reference to Fig. 6 of the accompanying drawings.

12. Fishing equipment as claimed in claim 1 and substantially as hereinbefore described 45 with reference to Fig. 7 of the accompanying drawings.

13. Fishing equipment as claimed in claim 1 and substantially as hereinbefore described with reference to Fig. 8 of the accompanying drawings.

50